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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/874,037	06/06/2001	Yasuro Matsuzaki	100353-00064	7606

7590

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ARENT FOX KINTNER PLOTKIN & KAHN, PLLC
1050 Connecticut Avenue, N.W., Suite 600
Washington, DC 20036-5339

EXAMINER

NGUYEN, HAI L

ART UNIT PAPER NUMBER

2816

DATE MAILED: 10/07/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/874,037

Applicant(s)

MATSUZAKI, YASURO

Examiner

Hai L. Nguyen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 August 2002.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-27 and 29-33 is/are pending in the application.
- 4a) Of the above claim(s) 29-33 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-27 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

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DETAILED ACTION

Response to Amendment

1. The amendment received on 8/08/02 has been reviewed and considered with the following results:

Applicant's election without traverse of claims 1-28 in paper No.4 is acknowledged. However, this application still contains claims 29-33 drawn to an invention non-elected without traverse. Therefore, a complete reply to this Office Action must include cancellation of non-elected claims.

As to the objection to the title, applicant's new title is acceptable.

As to the rejections to the claims, under 35 U.S.C. 112, 1st paragraph, applicant's amendments have overcome the rejections, as such, the rejections under 35 U.S.C. 112 have been withdrawn.

The prior art rejections to the claims made in the previous Office Action are now withdrawn in view of applicant's amendments. However, applicant's amendments necessitate new ground of rejection as set forth below.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

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The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) do not apply to the examination of this application as the application being examined was not (1) filed on or after November 29, 2000, or (2) voluntarily published under 35 U.S.C. 122(b). Therefore, this application is examined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

3. Claims 1-6, 15-18, 20, and 22-24 are rejected under 35 U.S.C. 102(e) as being anticipated by Ries et al. (US 5,734,877).

With regard to claim 1, Ries et al. discloses in Figs.1-4 a module comprising a semiconductor device (50); a phase adjustment circuit (40) which receives a phase adjustment signal output (SyncPLL) from the semiconductor device and a first clock (Master Clock) supplied from an exterior of the module, and generates a second clock (Sync4x); and an inherent output circuit that is provided in the semiconductor device and generates the phase adjustment signal from the second clock, wherein the phase adjustment circuit adjusts a phase of the second clock such as to fix a relative phase difference between the phase adjustment signal and the first clock.

With regard to claim 2, the semiconductor device comprises an inherent output buffer from which data is output in synchronism with the second clock (see Figs.3A-3B).

With regard to claim 3, Ries et al. discloses in Figs.1-4 a module comprising semiconductor devices (50s), one of which is a first semiconductor device (Upper 50) that outputs a phase adjustment signal (SyncPLL); a phase adjustment circuit (40) which receives the phase adjustment signal output from the first semiconductor device and a first clock (Master Clock) supplied from an exterior of the module, and generates a second clock (Sync4x), the

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second clock being supplied to the semiconductor devices; and an inherent wiring board on which the semiconductor devices and the phase adjustment circuit are mounted, the first semiconductor device including an inherent output circuit generating the phase adjustment signal from the second clock, wherein the phase adjustment circuit adjusts a phase of the second clock such as to fix a relative phase difference between the phase adjustment signal and the first clock.

Claim 4 is similarly rejected, note the above discussion with regard to claim 2.

With regard to claims 5 and 6, Ries et al. also meets the claimed limitations in these claims (see Figs.2&4).

With regard to claim 15, the module further comprises a terminal (RClock) that is provided on the wiring board and is used to output the phase adjustment signal to an outside of the module.

With regard to claim 16, the first semiconductor device (Upper 50) inherently generates the phase adjustment signal in accordance with a predetermined signal given from an outside of the first semiconductor device (26).

With regard to claim 17, Ries et al. also meets the claimed limitations in these claims (see Figs.2&4).

With regard to claim 18, the first clock (Master Clock) is supplied from an outside of the module.

With regard to claim 20, Ries et al. also meets the claimed limitation in this claim (see Claim 3).

With regard to claim 22, Ries et al. also meets the claimed limitation in this claim (see Fig.2).

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With regard to claims 23 and 24, the module further comprising a second phase adjustment circuit (60) generating a third clock so that the third clock and the first clock have a predetermined phase relationship, the third clock being supplied to the semiconductor devices, wherein the first clock corresponds to the third clock.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 7-14, 19, 21, and 25-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ries et al.

With regard to claims 7-10, the above discussed circuit of Ries et al. meets all of the claimed limitations except for the limitation that the first and second data lines are arranged on an identical side or on opposite sides of the wiring board. Even though Ries et al. does not disclose how the first and second data lines are arranged. It would have been obvious to one of ordinary skill in the art at the time of applicant's invention was made to arrange the first and second data lines on an identical side or on opposite sides which is in each case optimally matched to its application.

Claims 11-14 and 19 are rejected for similar motivation, note the above discussion with regard to claims 7-10.

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With regard to claim 21, the above discussed the module of Ries et al. meets all of the claimed limitations except for the limitation that the semiconductor devices comprise semiconductor memory devices. However, it would have been obvious to one of ordinary skill in the art to realize that the semiconductor devices of Ries et al. can be included many different devices, including the semiconductor memory devices as well, which is in each case optimally matched to its application.

With regard to claims 25-27, the above discussed in claim 3 that the module of Ries et al. meets all of the claimed limitations except for a dummy output load line serving as loads of dummy output data output from the modules as recited in the claims. However, it would have been obvious to one of ordinary skill in the art to realize that the module of Ries et al. can be included many different load devices, including the dummy output load line as well, which is in each case optimally matched to its application.

Conclusion

6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37

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CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hai L. Nguyen whose telephone number is 703-306-9178 and Right Fax number is 703-746-3951. The examiner can normally be reached on Monday-Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Timothy Callahan can be reached on 703-308-4876. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9318 for regular communications and 703-872-9319 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0956.

HLN

September 21, 2002


TIMOTHY P. CALLAHAN
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2800